context afford timely-filed broadcast applicants "protected status" as they prepare for a time-consuming and expensive comparative hearing process.[154]

The same is not true, however, in the satellite area. Although cut-off procedures are used in satellite processing as a method of promoting orderliness and administrative finality, in "contrast to terrestrial broadcast services, there is no longstanding tradition of awarding satellite licenses through comparative hearings."[155] Instead, the Commission historically has taken a flexible approach with respect to satellite licensing, adjusting its policies "as experience dictates" in order to "accommodate new entrants, the changing requirements of existing carriers, and satellites proposed by other countries."[156] In addition, in the broadcast setting -- unlike the present scenario -- there has been a historically defined service with clear spectrum allocations and service rules, which make the parameters for administering the filing of mutually exclusive applications understandably tighter. For these reasons, CD Radio's marshalling of a wealth of broadcast precedent to suggest that the Commission's discretion in this area is narrowly constrained, and that re-opening the processing round would fly in the face of "fifty years" of precedent "since December 3, 1945" is misleading and inapposite.[157]

In this case, whatever the propriety of or motivation for setting a cut-off date for the filing of satellite DARS applications before spectrum was even allocated to the service, the

---

154 See id. at 663. Note, however, that even in the broadcast context, "protected status" does not mean that timely filed applicants have any substantive "vested rights" vis-a-vis later applicants who may file after the cut-off. It is always "manifestly within the Commission's discretion" to consider all of the effects, on both pending applicants and new entrants, in deciding whether a cut-off rule should be waived. Id. at 656 n.7.

155 Mobile Satellite Service, 6 FCC Rcd at 4904.

156 Processing of pending space station applications in the domestic Fixed-Satellite Service, 93 FCC 2d 832, 838 (1983).

157 See Comments of CD Radio at 23.

Commission as a matter of law, and consistent with its policies in the satellite area, has the clear discretion to re-open the satellite DARS processing round and to accept new satellite DARS applications if it finds that such action would serve the public interest.

Notwithstanding their protestations, the satellite DARS applicants are well aware of this fact. Indeed, in the Commission's Mobile Satellite Service ("MSS") licensing proceeding it was CD Radio itself which argued that the Commission should re-open the MSS processing round and accept new applications![158] For CD Radio and the other DARS applicants now to suggest that the Commission lacks the legal authority to do so here, or to seriously claim reliance on cut-off protection in a context they knew to be risky and uncertain is disingenuous and incorrect.[159]

The real argument of the satellite DARS applicants, whether couched in terms of cut-off rules or straight public policy, is one based on the alleged "equities" that somehow attach to

---

158 See Mobile Satellite Service, 6 FCC Rcd 4900, 4914 (1991). In the MSS context, the Commission declined to accept CD Radio's position and re-open the MSS cut-off because the Commission feared that such action would delay international coordination of a domestic MSS system in the upper L-band and effectively preclude thereby the implementation of such a system. Such concerns are not at issue in this context, although the MSS case underscores CD Radio's implicit acknowledgement that the Commission always has the policy discretion to re-open a processing round in appropriate circumstances. It should do so here.

159 Moreover, as the NAB observed in its initial Comments, it is difficult to discern "equities" that should guarantee satellite DARS spectrum to the current applicants in a scenario where it has always been clear -- and repeatedly emphasized by and to the Commission and the applicants themselves -- that the current applicants proceeded at their own risk when they applied for licenses in a non-existent service. See Comments of the National Association of Broadcasters at 55-56; In re Satellite CD Radio, Inc. Requests for Section 319(d) Waiver, File Nos. 8-DSS-MISC-91(2), 47-DSS-MISC-93, DA 95-1908 (released Sept. 5, 1995) (emphasizing that "any expenditures made pursuant to this waiver prior to the Commission action on the underlying application are solely at CD Radio's own risk" and "may not be relied upon by CD Radio in any way during the rulemaking and subsequent licensing process," and citing possible re-opening of the satellite DARS processing round as one of the risk factors that the existing applicants have expressly assumed) (emphasis in original). Given this assumption of risk, the current applicants cannot and should not be heard to claim any equitable priority over new (and possibly more capable and efficient) applicants in the licensing process.

the four existing DARS applicants by virtue of their having applied for DARS authorizations before spectrum was even allocated to the service. Yet, as the NAB showed in its initial Comments, this claim is sheer nonsense.

American Mobile Radio Corporation, for example, argues that each of the pending DARS applicants relied on an "expectation that the Commission [would] adhere to its licensing rules in a given proceeding," and that the "clearer the rules, the greater the expectation of consistency."[160] Yet, if this is so, then the reliance interest of the current applicants is non-existent as a matter of logic and common sense: there were no "licensing rules," or even a spectrum allocation to the satellite DARS service, at the time the applicants filed their applications. In this proceeding, the record is clear that none of the applicants has ever relied upon -- nor has ever been capable of relying upon -- any particularized set of processing procedures (satellite or otherwise) in a manner that should result in the Commission affording them insulating them from competing applications.[161]

Finally, the Commission should accord no weight to the complaint of the current applicants that they have to date expended resources in prosecuting their DARS license proposals and developing their systems. Essentially, the pending DARS applicants seek the equivalent of a "pioneer's preference" in the satellite DARS service, arguing that they should be

---

160 Comments of American Mobile Radio Corporation at 7.

161 The Commission has on occasion actually dismissed pending applications and re-opened a filing window for new service applications where, as here, there are significant changes to service rules and spectrum use that occur during the pendency of earlier-filed applications. See, e.g., Operational Fixed-Service, 99 FCC 2d 715, 729-30 (1983) (dismissing 1,400 pending applications for 2.5 GHz band filed long before Commission determined precise nature of service rules or permissible uses of OFS spectrum, and opening new filing period for OFS applicants). While the NAB does not urge that the present DARS applications be dismissed, the public should at least be given the opportunity to reap the benefits of competition that new entrants may bring.

guaranteed "an exclusive seat at the licensing table if and when the service is approved."[162] To do otherwise, it is argued, would function as a dis-incentive for future entrepreneurs to develop innovative service proposals.[163] CD Radio, for example, complains that it "should be compensated -- rather than punished -- for having invested five and a half years of labor and more than $15 million" in the development of satellite DARS service.[164]

It is not "inequitable" to make CD Radio compete for a satellite DARS license, or to allow the marketplace to determine the value of the spectrum CD Radio prematurely claims as its own. Even if CD Radio's claims concerning the scope of its development efforts are accepted as a given, it is also true that the spectrum CD Radio seeks to guarantee itself is probably worth ten or twenty times that amount.

In this regard, the Commission's treatment of pending PCS pioneer's preference awards is directly on point, because the Commission addressed precisely the same arguments that the current applicants make here.[165] In the PCS context, the Commission explicitly rejected argument that the so-called "equities" of three pending pioneer's preference awards winners -- parties who underwent a three-year process far more contentious and protracted than the

---

162 Comments of Digital Satellite Broadcasting Corporation at 46. Similarly, the pioneer's preference is a construct used by the Commission as a means for an innovator that has developed a new service or technology to receive a license to provide that new service or technology without being subject to competing applications. The pioneer's preference rules are codified at 47 C.F.R. § 1.402, 1.403; 5.207 (1994). The rules were recently re-examined and modified in light of the GATT legislation, and the program is now scheduled to sunset on September 30, 1998. See Review of the Commission's Pioneer's Preference Rules, ET Docket No. 93-266, Third Report and Order 78 Rad. Reg. (P & F) 37 (1995).

163 Comments of Digital Satellite Broadcasting Corporation at 46; see also Comments of CD Radio at 31-32 (re-opening processing round would "remove any incentive for proponents of future new services to free up spectrum, resolve spectrum usage conflicts, and create valuable services"); Comments of American Mobile Radio Corporation at 9 (acceptance of further applications now would discourage future innovators).

164 See Comments of CD Radio at 29.

165 See New Personal Communications Services; Pioneer's Preference Review, 59 Fed. Reg. 42,521, 42,524 (August 18,1994).

present DARS applicants -- could justify enriching them with spectrum licenses that were grossly disproportionate in value to their application and development efforts.[166]

The same principle applies here and with even greater force, given that the current satellite DARs applicants have not been recognized by the Commission as "pioneers" in any sense.[167] The pending DARS applicants should not be unjustly enriched by being assigned large, exclusive portions of spectrum without being subjected to the competitive fervor and challenges of new applicants. Whatever resources the present applicants have spent are grossly disproportionate to the enormous spectrum windfall the Commission would bestow upon them by guaranteeing them special spectrum allocations.

Furthermore, while the Commission has expressly stated its awareness that "investors may be reluctant to commit funds to an innovator of a new service when the innovator will receive no advantage over other applicants in the licensing process," the Commission has also concluded in the final analysis that "the financial community will generally be able to judge whether an applicant's proposal is sufficiently innovative and valuable to warrant investment, just as it is able to judge whether a proposed business venture in other areas is viable."[168] If the current four applicants are destined for success against other competitors, the Commission should ensure that the market -- and not regulatory fiat -- makes it so.

The Commission has broad discretion at this juncture to establish its licensing approach to satellite DARS, and there is no "equitable" basis for unjustly enriching satellite DARS

---

166 See id. at ¶ 16 ("On further reflection, we are convinced that the equities, considered more broadly, favor a policy requiring payment.").

167 CD Radio has a pioneer's preference application pending before the Commission.

168 In the Matter of Review of the Pioneer's Preference Rules, Third Report and Order, 78 Rad. Reg. 2d (P & F) 37 (1995), at ¶ 15 (citations omitted).

applicants at the public's expense. The NAB once again urges the Commission to maximize the participation of as many parties as possible in the satellite DARS licensing process, and allow as many qualified parties as possible bring their competitive strengths to bear in the satellite radio marketplace.[169]

## B. The Commission Should Reject the Satellite DARS' Applicants Self-Serving Channel Plan.

In their initial Comments, the four current applicants, by their mutual agreement, have proposed to divide the allocated bandwidth into four equal 12.5 MHz blocks, with each of the current applicants being awarded a single block. Furthermore, the applicants are requesting that they be allowed to license one another's cross-polarization frequencies by mutual agreement. The Commission should reject this plan in its entirety. As shown below, the utterly self-serving allocation plan proposed by the current applicants is not consistent with the applications on file with the FCC for DARS service, is not spectrally efficient, and most important, is not in the public interest.

### 1. The Current Applicants' Proposed Channel Plan Attempts to "Lock Up" the DARS Spectrum for Their Exclusive Use, and Contravenes Both Their Applications and Their True Spectrum Needs.

In reviewing key aspects of the technical details of the currently proposed satellite DARS systems, a simple comparison between what was originally proposed by the applicants

---

[169] Although it is neither necessary nor appropriate (for the reasons set forth above), if the Commission for some reason does choose to give the present applicants some portion of satellite DARS spectrum, the applicants should be awarded only one 5 MHz license in accordance with one of the NAB's proposed channel plans for satellite DARS licensing. Under the NAB's proposals, there would still be a healthy number of licenses that could be allocated to other competitors. See Comments of the National Association of Broadcasters at 59-60. As set forth below, the spectrum proposals of the present DARS applicants are self-serving, inefficient and will harm the public interest.

and what is now described in their recent Comments reveals that significant changes have been made to these systems. Table 1 illustrates the total number of "CD-quality" channels and required RF bandwidth specified in the applications currently on-file, while in Table 2 these same quantities are shown as revised in the applicants' comments.

Table 1. Technical Parameters as Proposed in Applications

| APPLICANT | TOTAL # OF EQUIVALENT CD-QUALITY CHANNELS | REQUIRED RF BANDWIDTH† (MHZ) |
|---|---|---|
| AMRC[170] | 15 | 10 |
| Primosphere[171] | 24 | 50 |
| CD Radio[172] | 31 | 20 |
| DSBC[173] | 32 | 25 |

†reflects frequency diversity requirements

---

170 See Application of American Mobile Radio Corporation Sept. 15, 1992), at 7.

171 See Application of Primosphere Limited Partnership (September 15, 1992), at 29.

172 See Compendium of Applications and Restatement of Rulemaking Petition, Satellite CD Radio (December 30, 1991), at 24, ¶ 1. Note that Figure 1 of the application, which accompanies this text, shows that the 50 MHz satellite DARS band would accommodate only 5 8-MHz channels (for LHCP), illustrating a de facto 10 MHz bandwidth requirement per channel. This requirement must be doubled to allow for the frequency diversity aspect of the CD Radio system, resulting in a final bandwidth requirement of 20 MHz.

173 See Application of Digital Satellite Broadcasting Corporation (September 15, 1992), Appendix I, at 3, 7.

Table 2. Technical Parameters as Proposed in 9/15/95 Comments

| APPLICANT | TOTAL # OF EQUIVALENT CD-QUALITY CHANNELS | REQUIRED RF BANDWIDTH‡ (MHZ) |
|---|---|---|
| AMRC[174] | 36-44 | 12.5 |
| Primosphere[175] | 20 | 12.5 |
| CD Radio[176] | 35 | 12.5 |
| DSBC[177] | 35 | 12.5 |

‡DOES NOT reflect frequency diversity requirements

The system modifications shown in the contrasting tables above are in some cases dramatic. For example, Primosphere in its original application requested 50 MHz of spectrum to provide 24 equivalent CD-quality channels. Primosphere, however, has now revised these figures, and proposes to provide 20 channels in only 12.5 MHz of bandwidth. Primosphere has indicated that it will need to file an "amendment to its application" in light of this change in

---

174 See Comments of AMRC at 25.

175 See Comments of Primosphere Limited Partnership at 6. The actual number of `near' CD-quality channels proposed by Primosphere is 19 which, along with 7 to 9 proposed voice-quality channels, is presented as 20 total CD-quality channels in Table 1 above.

176 See Comments of CD Radio at 11.

177 See Comments of DSBC at 31.

system design.[178] In fact, all four applicants will need to amend their applications to reflect these major changes in system design.

Referring again to Table 2 above, the Commission should note that the required RF bandwidth for satellite DARS as now proposed by the applicants is ambiguous.[179] For example, CD Radio has requested a bandwidth of 12.5 MHz to accommodate 35 CD-quality channels, but this does not take into account the diversity aspects of CD Radio's system. In fact, if frequency diversity is taken into account, CD Radio will actually require twice this amount of bandwidth. How CD Radio plans to obtain this bandwidth is unclear, but it likely that CD Radio will propose a mutual frequency-sharing arrangement with another applicant, and will then make use of the cross-polarized spectrum, which remains un-allocated under the applicants' proposed channel plan. Likewise, Primosphere's original request for 50 MHz of satellite DARS spectrum indicated that this spectrum would be used to accommodate two carriers, each requiring 25 MHz for frequency diversity. Primosphere's Comments now request 12.5 MHz, but do not indicate how Primosphere's frequency diversity requirement is to be supported.

Overall, it is evident that the current satellite DARs' applicants' systems now differ in significant respects from those that had been originally proposed. These differences do not appear to be motivated by breakthroughs in technology. Instead, they appear to be carefully tailored to ensure that the current applicants make full (and wasteful) use of the available

---

178 See Comments of Primosphere Limited Partnership at 12.

179 This is in contrast to the figures in Table 1, taken from the original applications, in which the bandwidths were more clearly stated, frequency diversity aspects and all. In the current requests for bandwidth as made in the recently-filed comments, no such clarity with respect to frequency diversity is apparent.

spectrum in a manner that eliminates the possibility of additional competitors. The NAB suggests that these system changes considerably weaken the applicants' position that new DARS applications should not be considered, since the current applicants have effectively submitted new applications themselves.

## 2. The Proposed Satellite DARS Channel Plan is not Spectrally Efficient.

Referring again to Table 2 above, the combined total number of equivalent CD-quality channels which will be accommodated under the channel plan proposed by the applicants is 134 channels (or fewer). The data and comments provided by the applicants themselves, particular those of CD Radio, show that this number is significantly less than what could be accommodated in the 50 MHz satellite DARS allocation.

First, CD Radio's Comments conclude that a CD-quality channel "requires a radio frequency transmission bandwidth of 344 KHz."[180] This figure is consistent with the number of channels being proposed by all other applicants except Primosphere, who proposes a significantly less-efficient 625.5 KHz per CD-quality channel.

Second, the pool of existing applicants has collectively embraced the fact that the frequencies in the satellite DARS band may be re-used by utilizing cross-polarization.[181] This fact is significant because the use of cross-polarization increases by as much as a factor of two the amount of bandwidth available for satellite DARS service.

---

[180] See Comments of CD Radio, Appendix B, at 15.

[181] See Joint Comments of the DARS Applicants at 4.

What follows from the above two assumptions is that the satellite DARS band should have a capacity of approximately 290 channels -- 50 MHz times two (due to frequency re-use), divided by 344 kHz per channel -- which is over twice the number of channels being proposed by the current applicants. Even if a somewhat more conservative approach is considered, such as the one proposed by the NAB in its initial Comments (whereby the 50 MHz satellite DARS band is "extended" to a usable 95 MHz by virtue of frequency re-use),[182] the band can support approximately 275 channels, which is still twice the number supported by the applicants current proposal.[183] Further evidence of the self-serving nature and spectral inefficiency of the DARS applicants' proposal is provided in the Comments of Cracker Barrel, which conclude that "approximately 465 compact disk quality 128 kbps channels can be accommodated in the 50 MHz allocated to DARS." This represents a three-fold increase in channel capacity over that available with the plan currently proposed by the applicants.

The plan being put forth by the current applicants for spectrum utilization is woefully inefficient, whether it is judged by standards which the applicants' themselves have put forth, or against a more innovative and efficient system such as that proposed by Cracker Barrel. The Commission should reject it as contrary to the public interest.

### 3. The Proposed Channel Plan is Not in the Public Interest, and is Designed to Entrench the Current Applicants and to Exclude the Possibility of the New Applicants.

---

[182] See Comments of the National Association of Broadcasters at 60 (see second proposed plan, which allows for frequency re-use by means of orthogonal cross-polarization).

[183] See Comments of Cracker Barrel Old Country Store, Inc. at 9.

As can be inferred from the above, there are a number of aspects of the current spectrum plan proposed by the current satellite DARS applicants which negatively impact the public interest. First and foremost, the previously described spectral inefficiency of the current applicants' plan clearly contravenes the public interest in maximizing the efficient use of the orbit-spectrum resource. This is especially true since more spectrally efficient satellite DARS system designs exist today that do not rely on unproven or as-yet-to-be-developed technology.

Nor is it in the public interest for the current applicants to in effect re-apply for satellite DARS spectrum by radically re-designing their systems, but at the same time to demand that other parties be excluded from applying. The satellite DARS applicants rely upon a spectrum plan which is primarily motivated not by technical considerations, but by a parochial desire to ensure that they are the sole providers of satellite DARS service. In fact, two of the applicants go so far as to suggest that if, at some point, one or more of the current applicants were to withdraw from service, the bandwidth left behind should be divided up, pro-rata, among the remaining service providers.[184] Once again, this demonstrates that the governing philosophy underlying the current applicants' spectrum plan is for these applicants to obtain the maximum amount of spectrum that they can, irrespective of any other consideration.

Finally, the applicants' proposed spectrum plan is contrary to the public interest to the extent that it allows the applicants, and not the Commission, to determine the use of the cross-polarization frequency band regardless of their capacity needs. At this point, it is difficult to tell exactly what the applicant's intentions are regarding the use of cross-polarized frequencies. The original satellite DARS applications clearly stated the applicants' spectrum requirements

---

[184] See Comments of Primosphere Limited Partnership at 43, and Comments of DSBC at 53.

based on the technical details of their systems, and in particular, stated whether and how they would rely on the use of the orthogonal cross-polarization. But now, given that the applicants have utterly altered their asserted bandwidth requirements, it is unclear exactly how the cross-polarization frequencies will be used. Today, the satellite DARS bandwidth requirements seem to rely only upon the fact that there are four applicants and 50 MHz of available spectrum -- no technical reasons are being put forth to substantiate the request for 12.5 MHz per applicant. Nor is the need for cross-polarization explicitly spelled out, although it is safe to assume that such a need exists, based upon the applications on file as well as the applicants' collective request in their Comments that they be allowed to license the cross-polarized frequencies among one another by mutual agreement.

If cross-polarization frequencies are to be used, the NAB believes that it is in the public interest for the FCC to allocate them. In this way, the applicants will be compelled to notify the Commission and the world of their actual frequency requirements based on the technical details of their systems, and will no longer be able to "hide" their true spectrum requirements behind a 12.5 MHz facade which is related only to the self-serving needs of the existing group of four applicants.

The spectrum plan proposed by NAB solves this problem. It serves the public interest well by making it possible to efficiently utilize the entire allotment of satellite DARS spectrum, orthogonal polarizations included. Furthermore, the NAB plan is consistent with the needs of the existing applicants, who may operate a cross-polarized 5 MHz license on a standalone basis, or may aggregate a sufficient number of 5 MHz blocks as their services require.

Finally, and most importantly, the frequency block size determination in the NAB's proposed plan is not merely a function of available frequency divided by the number of applicants, as the existing applicants propose. The public interest demands that the technical rules for satellite DARS be based on sound technical and public policy reasons, and not simply the number of applications received by the Commission. The NAB's proposal can accommodate both the needs of existing applicants and new entrants in a spectrally efficient manner, and the NAB urges the Commission to adopt it.

Respectfully submitted,

NATIONAL ASSOCIATION OF
BROADCASTERS
1771 N Street, N.W.
Washington, DC 20036

Henry L. Baumann
Executive Vice President and
General Counsel

Valerie Schulte
Senior Associate General Counsel

Eric L. Bernthal
James H. Barker III
Latham & Watkins
1001 Pennsylvania Ave., NW
Washington, DC 20004

Of Counsel

Mark Fratrik, Ph.D.
Vice President/Economist

October 13, 1995

ATTACHMENT 1

# THE

# TRUTH

# ABOUT

# SATELLITE RADIO

National Association of

NAB®

BROADCASTERS

**On September 7, 1994, CD Radio, Inc. filed a report with the FCC which claimed that satellite radio "won't hurt traditional radio."**

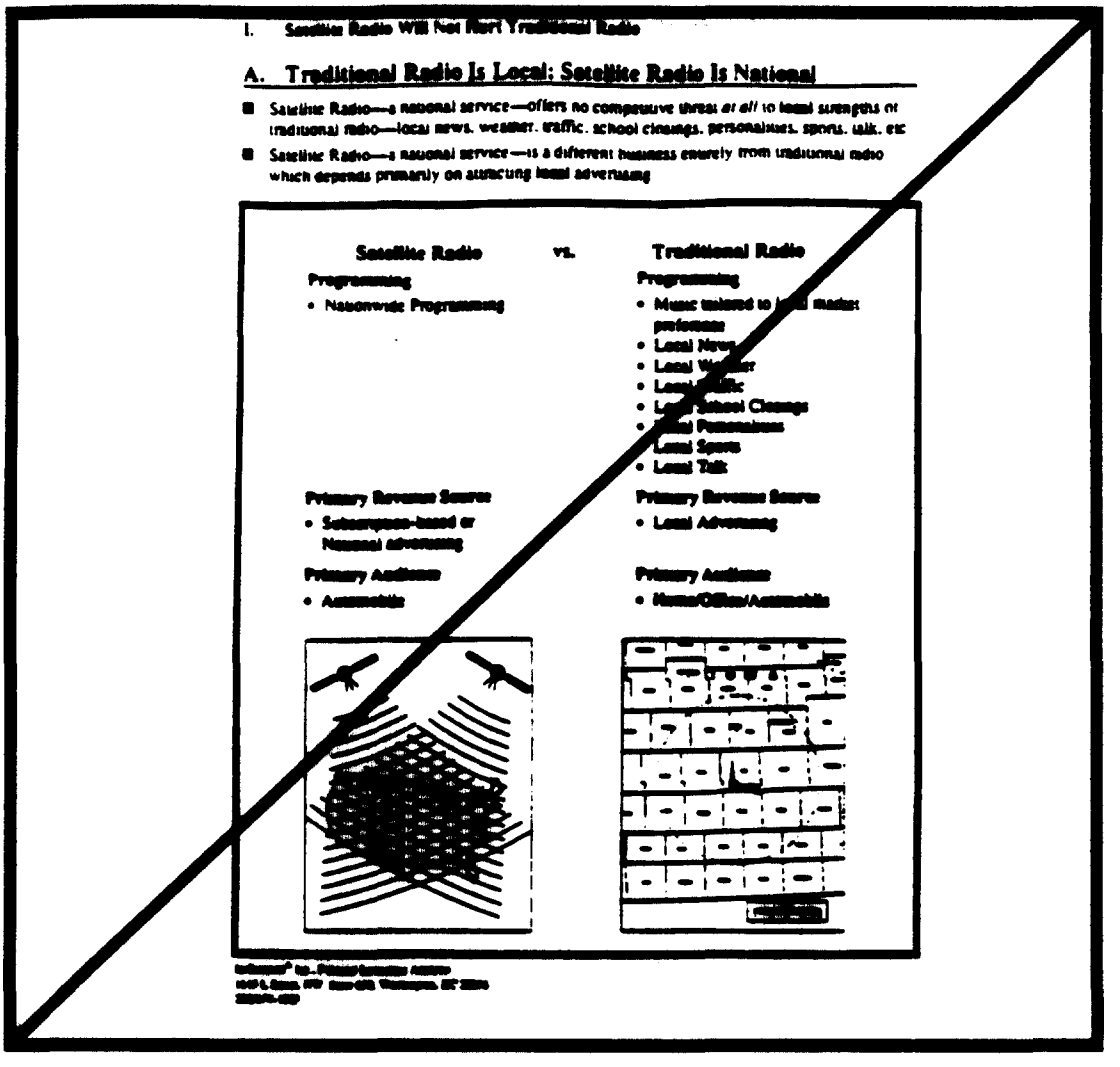
**The CD Radio, Inc. report is a glitzy, sound-bite approach to a complex and important issue**

**The following is the truth about satellite radio:**

# THE TRUTH ABOUT SATELLITE RADIO

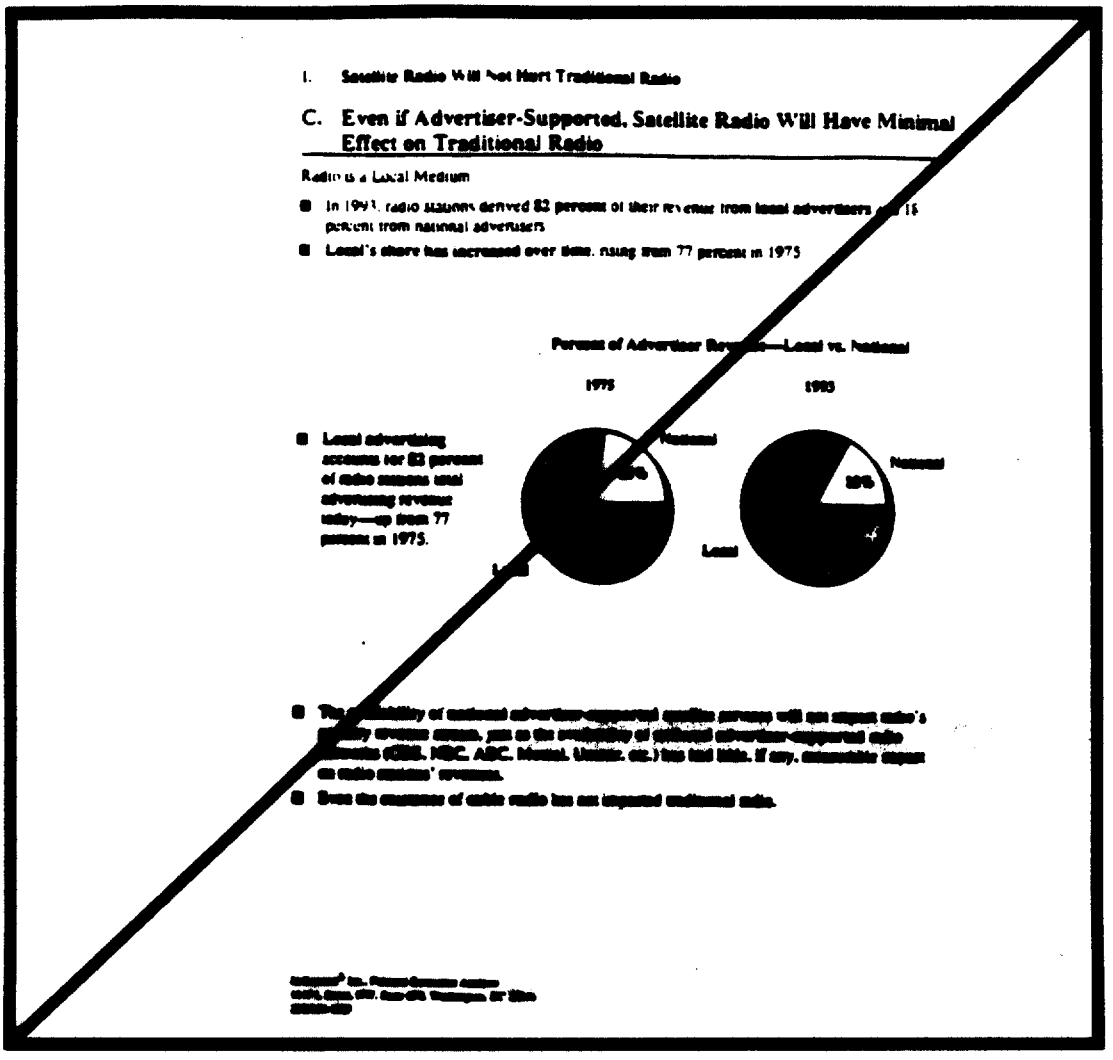
- Satellite radio would fragment radio audiences so that, over time and beginning in the smaller markets, local radio would no longer be profitable.
- Satellite radio would precipitate devastating effects for the community service provided to local communities and local advertisers by local radio, with no replacement in local service or advertising outlets.
- Satellite radio would largely duplicate the radio programming and formats provided by local radio, rather than fulfill the "pie-in-the-sky" promises of channels devoted exclusively to multiple foreign language, ethnic and alternative formats.
- Satellite radio would provide virtually no opportunity for diversification of ownership and would have virtually no public interest or minority employment obligations.
- There is no need for "more" radio service (à la Docket 80-90), no need for a national radio service, and no need for more competition in radio service.
- Satellite radio would be just "more" network feeds via "old" satellite technology to new terrestrial gap fillers (repeaters) to reach most of the audience, not the new technology being touted.
- Satellite radio would provide "new" radio service to a relatively small segment of the population at a tremendous national cost.
- Satellite radio would occupy a large portion of valuable spectrum, which could be put to better and more profitable uses.
- Satellite radio, with its enormous capital investment, presents an unlikely chance of financial profitability as a subscriber-based radio service -- the more likely-to-succeed scenario is that of a data "Trojan Horse" with a radio tail.

# THE TRUTH ABOUT SATELLITE RADIO



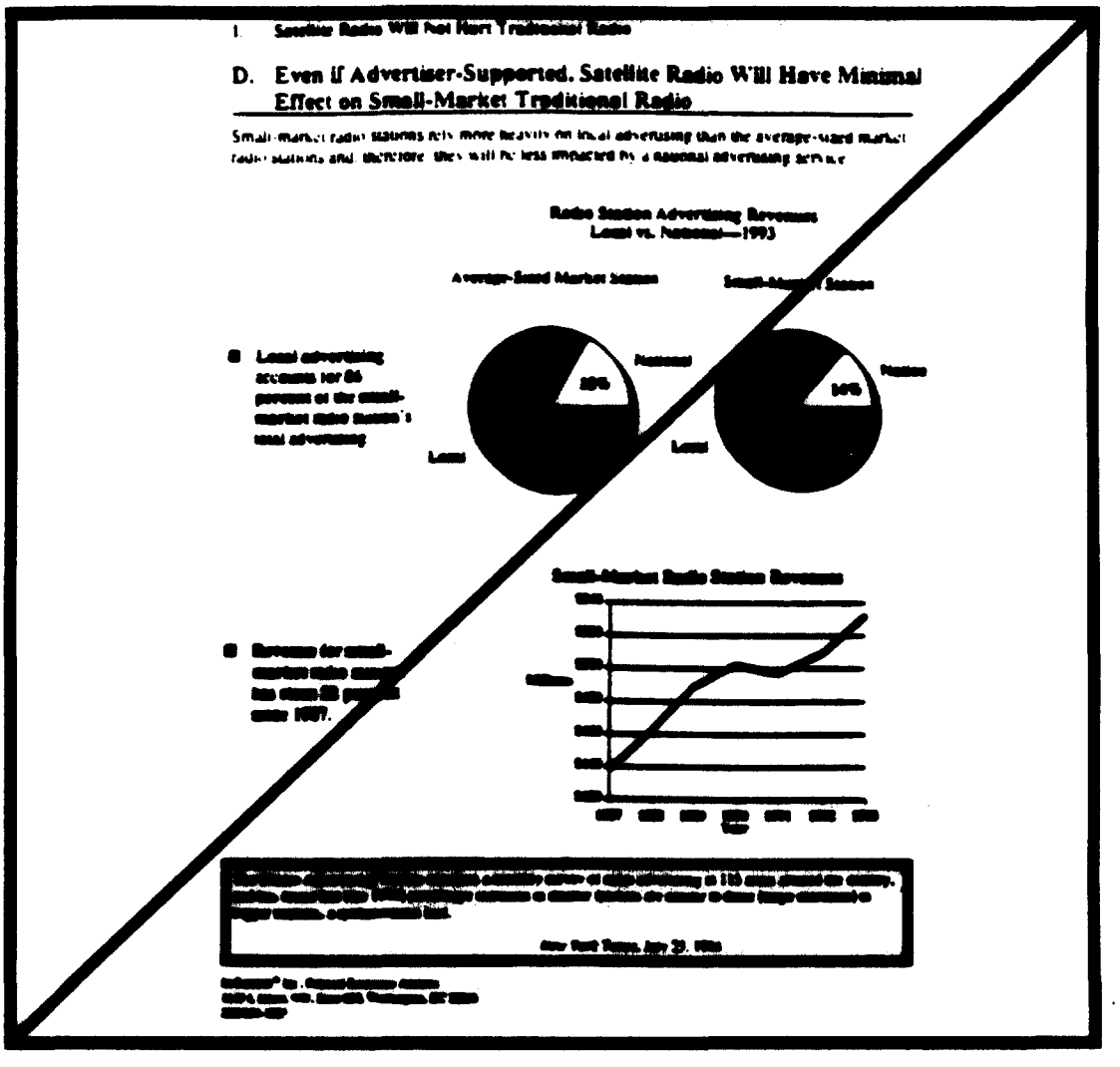

- Even a small amount of national advertising represents a large percentage of a station's cash flow.
- Any audience diverted to satellite services would reduce the revenues local advertisers would pay local stations.
- Given the fixed cost nature of the local radio business, any loss in national advertising revenues, however small, would have a significant impact on local stations' overall profits and their ability to serve local needs.
- The primary audiences of local radio and satellite radio are the same: home/office/auto. They will compete directly for local market share.

# THE TRUTH ABOUT SATELLITE RADIO



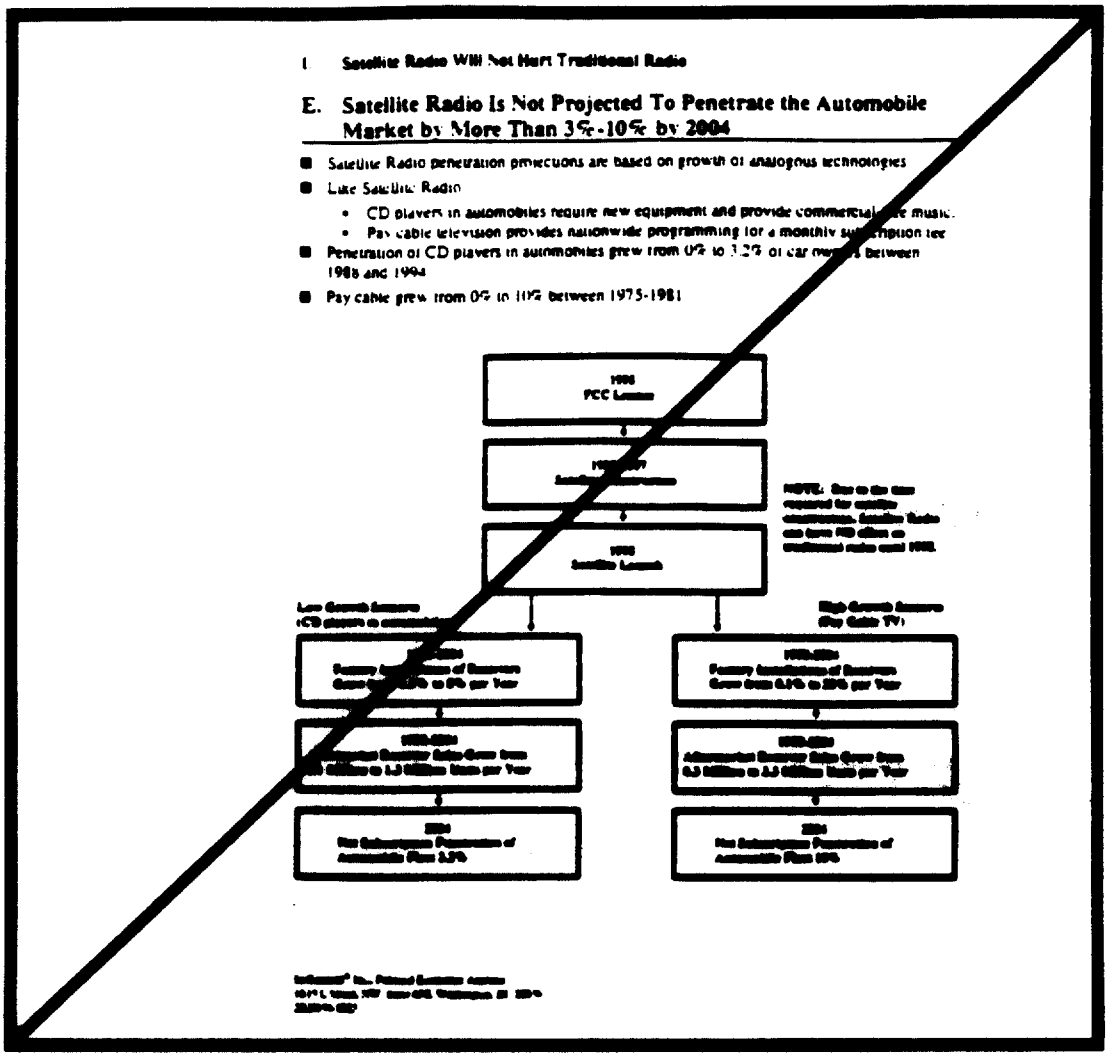

- Satellite radio is not analogous to radio networks. Radio networks reach audiences on local stations, which benefit from local ad sales during network programming, and increased listening of adjoining local programming.

# THE TRUTH ABOUT SATELLITE RADIO



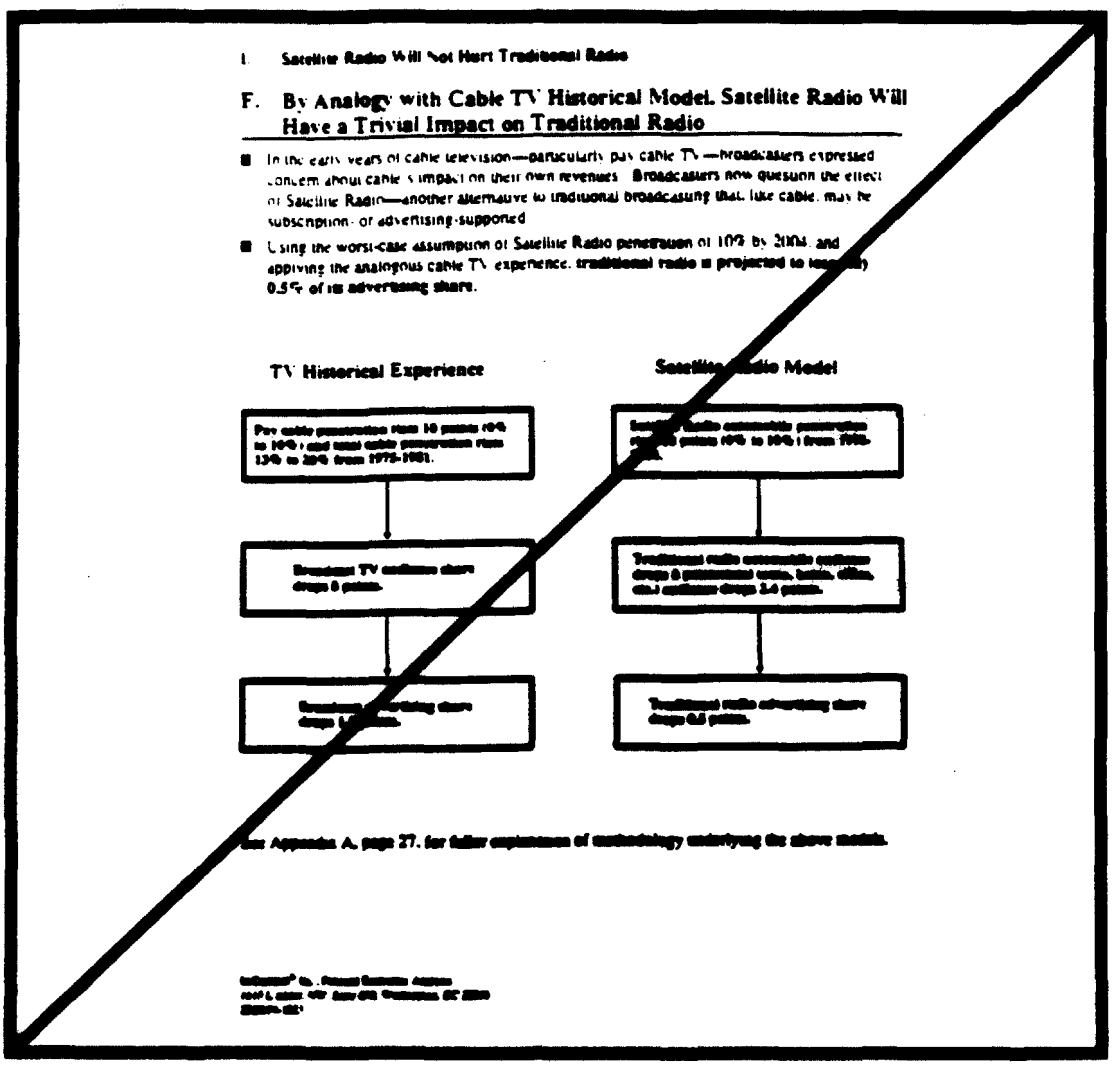

- Between 1987 and 1993 inflation increased 24.9%, so, in fact, the real change in small market radio revenue was a negative 2.9%.
- That lower real revenue is spread around many more stations in smaller markets (due to the growth of stations from Docket 80-90).
- Therefore, the average small market station has seen a dramatic decrease in revenue at a time when the station's expenses have risen.

# THE TRUTH ABOUT SATELLITE RADIO



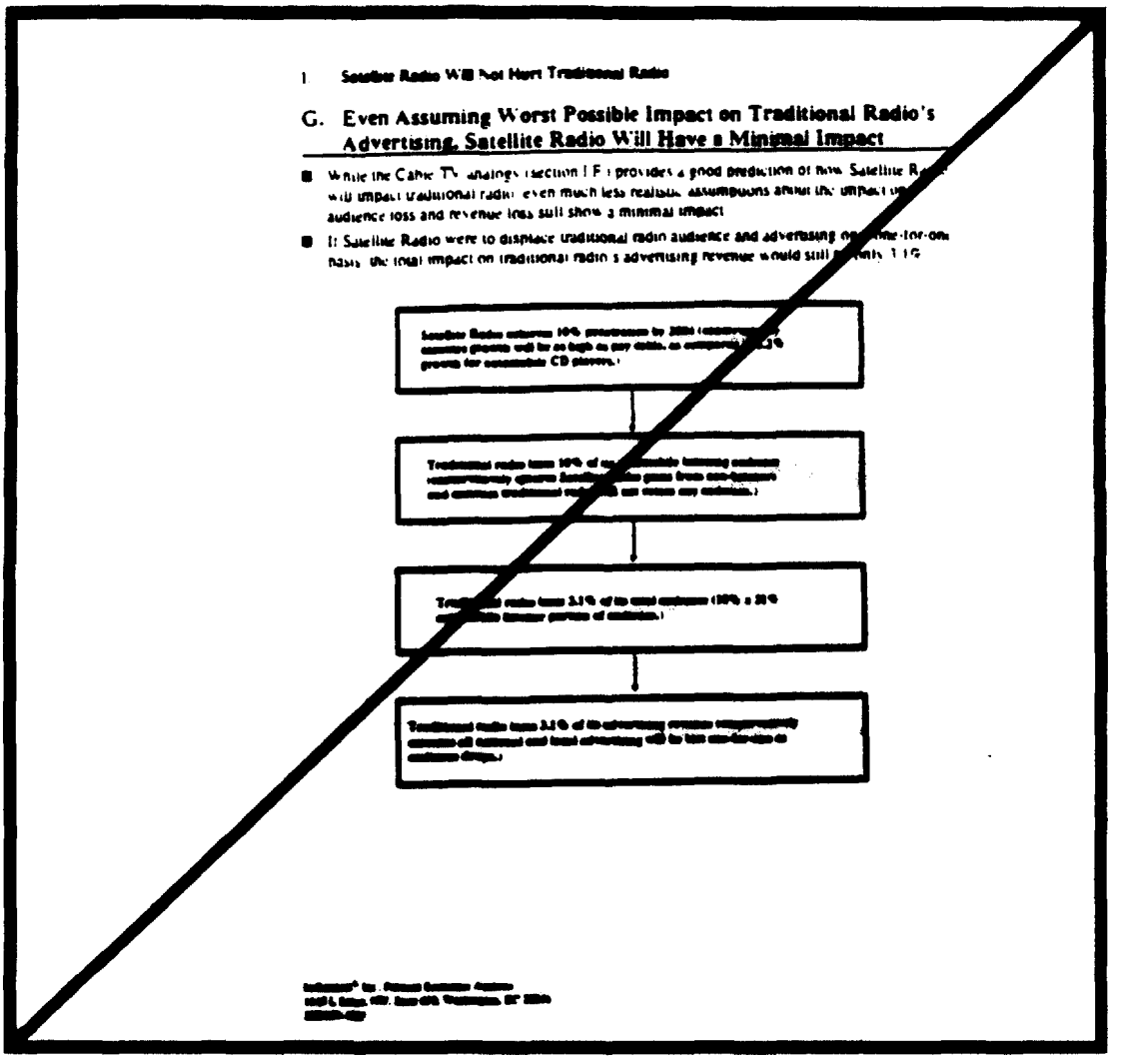

- To say that penetration (and therefore impact) would not occur until a date in the future shows when impact would occur, not whether there would be an impact.

# THE TRUTH ABOUT SATELLITE RADIO



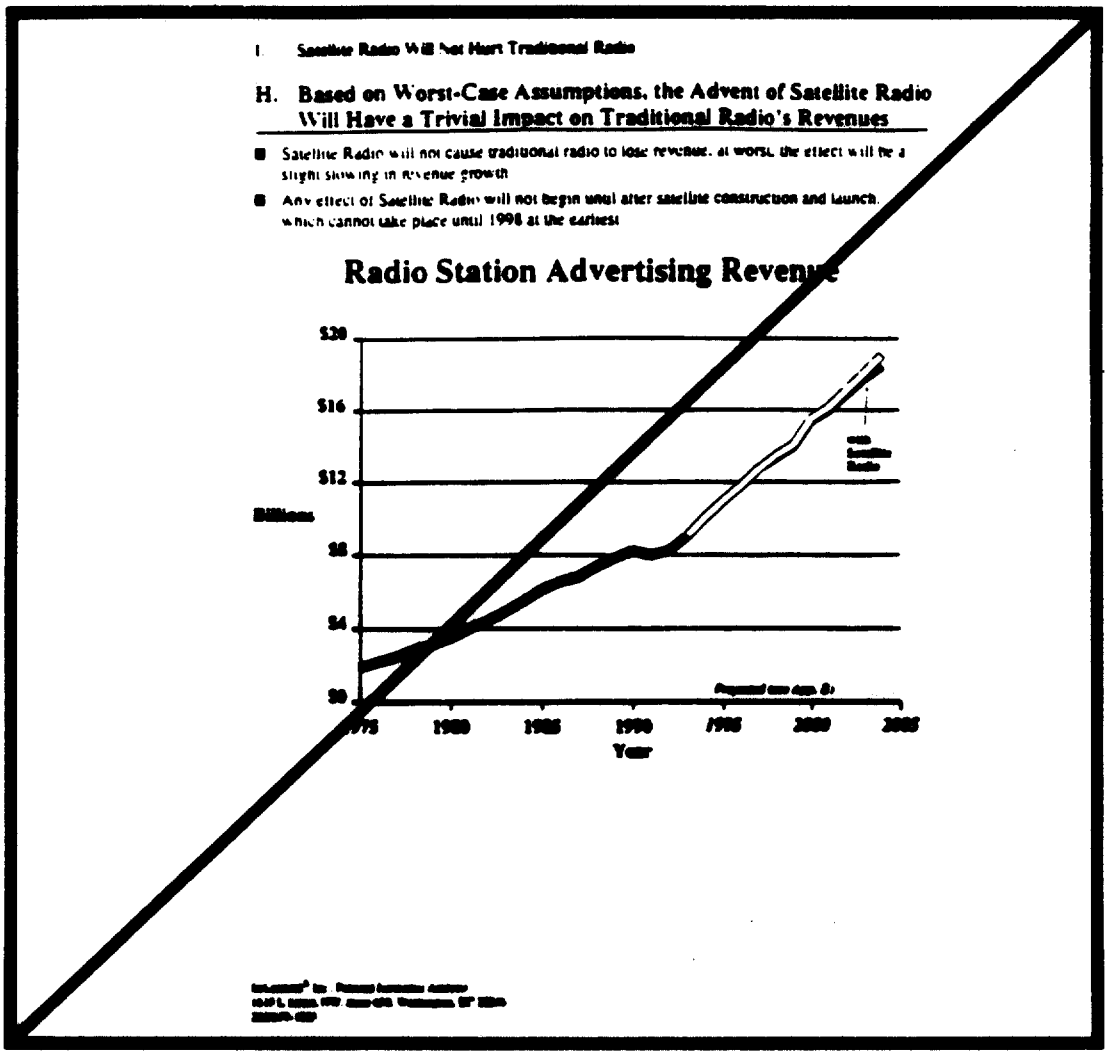

- Estimates of revenue loss only assume loss of audiences from automobile listening. With fixed point listening, the audience diversion and resulting advertising loss would be much greater.
- A .5% loss of advertising share would have much larger percentage impact on cash flow.
- Use of cable as an analogy for subscription growth is inappropriate since only a small portion of the country was being served by local cable systems during 1975-1981, as opposed to satellite services which do *not* need local affiliates to provide programming.

# THE TRUTH ABOUT SATELLITE RADIO



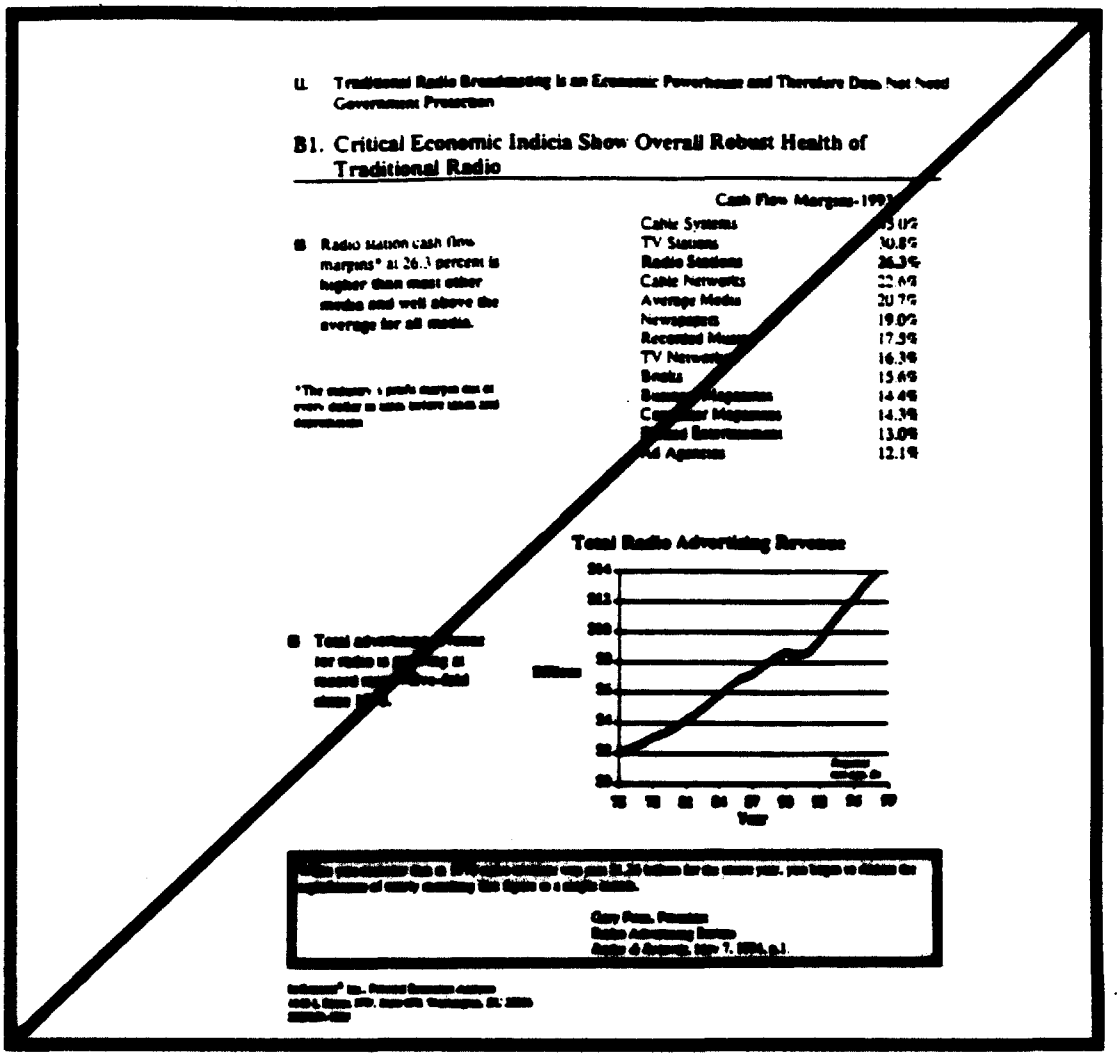

- Local radio's loss of automobile audiences would represent a far greater loss in revenue than 3.1% because premium rates are received for delivering programming to large automobile audiences at peak listening times. This translates into a much larger loss of cash flow.

# THE TRUTH ABOUT SATELLITE RADIO




- Revenue loss would be much larger than estimated here and would have a significant negative impact on stations' profitability. This impact would in fact push over the edge many radio stations who, due to the high fixed costs of the industry, would no longer be able to cover expenses.
- The title and graph are misleading: the graph does not depict radio "station" average revenues, but radio "industry" revenues, which are now shared by many more stations.

# THE TRUTH ABOUT SATELLITE RADIO




- Cash flow margins cited are only for those stations that are part of publicly-traded corporations which have many, if not all, of their stations in larger markets.
- Stations in smaller markets have much lower cash flow margins. Radio is a high fixed-cost industry, with smaller-revenue stations finding it difficult to remain profitable.